

Amendments to the Specification

Please amend the specification as follows.

[0001] This application is a divisional of U.S. Ser. No. 10/260,308 to Edlou et al. (now U.S. Patent No. 6,824,654 that issued November 30, 2004), entitled “Cube and Method of Making Same,” filed October 1, 2002, which is incorporated by reference herein in its entirety.

[0021] As seen in FIG. 4, one of the prisms 200A has a dielectric stack 400 deposited onto a main body 402 of the prism 200A. The dielectric stack 400 includes multiple and alternating layers of high 404 and low 406 index of refraction materials. These layers 404 and 406 are deposited onto the main body 402 of the prism 200 during a multi-layer coating process 604, discussed in more detail below. The dielectric stack 400 can contain a plurality (e.g., 20-50) of layers ~~having~~ with each layer being 500 mm - 2 micron thick, depending on the environment in which the cube 102 is used. In some embodiments utilizing light having a wavelength of 157 nm, the high index of refraction material is gadolinium fluoride (GdF₃) or lanthium fluoride (LaF₃) and the low index of refraction material is magnesium fluoride (MgF₃). In other embodiments utilizing light having a wavelength of 193 nm, the high index of refraction material is neodymium fluoride (NdF₃) and the low index of refraction material is aluminum fluoride (AlF₃). In alternative embodiments, other materials with the same properties as those described above can be used.

[0026] During the multi-layer coating process 604, the prism 200A that will become a coated prism is placed in the vacuum chamber 500 at step 708. A multi-layer coating process is performed at step 710. During this process alternating deposition of a layer of high index of refraction material 404 and a layer of low index of refraction material 406 forms the dielectric stack 400. The deposition process can be performed by electron beam evaporation, ion beam sputtering, resistance source evaporation, or any other known deposition method. The coated prism 200A is cooled at step 712 724 and inspected at step 714.

Amendment to the Figures

Replacement sheets for Figures 3 and 4 are submitted herewith to change the leadline for element 300 in Figure 3 and to correct shading in Figure 4.